INDEX.

PAGE

Acid and Oxide of Manium, new... 211
Aconites, Alkaloids contained in the 214
Adulteration of Food..... 194
Aeronautics, the Progress of 364
Æstivation, Floral 320, 424
African Coffee-plants..... 320
Agassiz, A., on Hermit Crabs getting possession of their Shells 183
Air and its Relation to Life 94
Alabaster, Calcareous, from Mexico 323
Albumen and Nitrogen in Milk..... 426
Alcock's "Botanical Names for English Readers" 307
Alkaloids contained in the Aconites 214
America, Astronomy in 351
" Production of Bromine in 324
" Samarskite in..... 216
American Chemical Society 426
" Earthquakes 429
" Fossil Fishes 327
" Geological Surveys ...305, 418
" Lobster, early stages of the..... 224
" View of British Rivers... 214
Anatomical Specimens, Chloral a substitute for Spirits in Preserving..... 214
Anatomy, comparative, 112, 221, 335, 435
" of the Giraffe 112
Andaman Islands, new Plants from the 102
Animal Morphology 301
" Parasites..... 191
Animals, Extinct, of North America 276
" Geographical Distribution of 406
Anti-Darwinism..... 308
Ants, peculiar Food of..... 320
Apes, Evolution of the Human Race from..... 310
Aquaria: their Present, Past and Future..... 253
Arctic Yachting..... 200

PAGE

Armament of the "Inflexible"..... 60
Ascidian, Development of the 224
Ash-showers of Iceland..... 429
Assyrian Sculptures, the Mammals of the..... 336
Astronomy.....98, 202, 315, 420
" for the People..... 96
" in America..... 351
Atlas of Diatomaceæ 102
Atmosphere, Common and Magnetic Iron in the 221
Atmospheric Phenomenon, Remarkable, at Ceylon 333
Atteridge, A. H., on Popoffkas or Circular Ironclads 266
" on the Armament of the "Inflexible"..... 60
Attractions, Sound..... 436

Balloon, French, the last Form of 220
Barometer, Mountain, new Form of 434
Bastian's, Dr., Position, Spontaneous Generation and 113
Bats..... 225
Battery, a Monster..... 219
Beetle's Eye, looking at a Watch through a..... 217
Bernstein's "Five Senses of Man" 309
Biliverdin, the Reaction of..... 323
Bird, Development of the 222
" Gigantic, from the Eocene of New Mexico 328
Birds with Teeth..... 327
Black Knot of Plum and Cherry-trees 322
Bland's "Elementary Botany"..... 415
Boa-constrictor, Impregnation of the..... 435
Bones of the Hadrosaurus..... 212
Books, Reviews of.....84, 185, 299, 406
Botanical Names..... 307
" Newspaper, "The Garden"..... 207

PAGE

Botany.....101, 205, 319, 423
„ Elementary..... 415
Brachiopoda, Oolitic 211
Brain in Man and the Lower Animals 213
„ of Dinoceras, the 326
Brearey, F. W., on the Progress of Aeronautics..... 364
British Insects, Sketches of 193
„ Rivers, American View of... 214
Brixham Cavern, Flint Implements from the 211
Bromine, Production of, in America 324
Bromoform in Commercial Bromine, detection of..... 211
Browne, Capt. C. O., on the Eighty-one Ton Gun 241
Browning's Self-acting Latch..... 106
Brown's "Reboisement in France" 189
Buckley's "Short History of Natural Science" 196
Bunsen Burner, Novel and Useful Form of..... 219
Butterfly, Cosmopolitan..... 436

Calcareous Alabaster from Mexico 323
California, the Petrified Forest of 326
Cameron, Lieut., Return of..... 325
Carbohydrate, a New..... 209
Carboniferous Conifers 212
Carrara Marbles, Geology of the ... 427
Castracane's, Count, Views on Ultimate Vision with the Microscope 433
Cat as a Substitute for the Carrier-pigeon 435
Ceylon, Remarkable Atmospheric Phenomenon at 333
"Challenger" Expedition, the 335
„ in the Wake of the... 1
Chameleon's Changes of Colour, how Produced..... 222
Chemical Society, American 426
Chemistry.....103, 209, 322, 425
„ Class-book of..... 300
Cherry-trees, the Black Knot of.... 322
Chicory in Coffee, Detection of..... 322
Chloral, a Substitute for Spirits in Preserving Anatomical Specimens..... 214
Chlorophyll-grains, Formation of Starch in..... 205
Cholera 408
Climate of the Poles..... 105
Climbing Plants..... 86
Coal, Diatomaceæ to be Obtained from..... 217
Coal-gas, Sulphur in..... 324
Cobbold's "Tape-worms"..... 92
Coffee, Detection of Chicory in..... 322

PAGE

Coffee Diseases, two 161
„ -plants, African..... 320
Comets..... 203
Commercial Bromine, Detection of Bromoform in..... 211
Comparative Anatomy, 112, 221, 335, 435
Conchology, Popular 94
Cooke, M. C., on two Coffee Diseases 161
Cooke's "Mycographia" 101
Copal-tree, the..... 320
Corals of the Galapagos Islands.... 223
Coryphodon, Remains of 327
Crabs, Hermit, how they get possession of their Shells..... 183
Crampton's "Three Heavens"..... 201
Creation, a History of 185
Cretaceous Flora..... 46
„ Vertebrata of North America 190
Crookes, Mr., Royal Society's Medal to..... 210
Crustacea of the North Pacific Exploring Expedition..... 335
Crustacean Fossil, New..... 104
Crystallisation of Sugar, Circumstances which affect the..... 210
Cunnington, H. A., on Heat as a Motive Power..... 128

Dallinger, Rev. W. H., on Spontaneous Generation..... 113
„ on Heterogenesis..... 338
Darning Stockings, Machine for..... 106
Darwin's "Climbing Plants"..... 86
„ "Variation of Animals and Plants under Domestication" 299
Dawn of Life, the..... 87
Dawson's "Dawn of Life"..... 87
Death of Dr. Letheby..... 324
„ Sir C. Wheatstone..... 111
Diatomaceæ, Atlas of..... 102
„ Absorbed by Roots of Plants 433
„ to be obtained from Coal 217
Digestion of Insects 222
Digestive Power of Plants, Experiments on the, ... 319
Dinoceras, the Brain of 326
Dinocerata, Remains of..... 327
Dynamite, Experiments with Frozen 436
Drift, Nomenclature of the 212
Drowning Persons, how to rescue 431
Dunraven's "Great Divide"..... 198
Durangite, Chemical Composition of 432

Earthquakes, American 429
Earth, Temperature of the Interior of the 435

PAGE

Eighty-one ton Gun, the 241
Electric Communications without Wires 334
Electrical and Magnetic Measurement, Exercises in 310
Electricity, Railway Travelling and 138
Electro-conductibility of Pyrites ... 221
Elementary Botany 415
Emissive Power of Leaves 207
Ethyl Alcohol in Plants 210
Experiments with Frozen Dynamite 436
Extinct Animals of North America 276

Fairy-rings, origin of 206
Fermentation 303
Fern Book, a popular 415
Filters, Action of 426
Five Senses of Man, the 309
Flint Implements from the Brixham Cavern 211
Flora, Cretaceous 46
Floral Æstivation 320
Flower (Prof.), on the Extinct Animals of North America 276
Food and its Adulteration 194
Forests, Influence of, on the Quantity of Rain 221
Fossil Crustacean, new 104
„ Fishes, American 327
„ Trees, Scotch 213

Galapagos Islands, Corals of the 223
Gallium, new metal, the 329
Galton (J. C.), in the wake of the "Challenger" 1
Geographical Distribution of Animals 406
Geography 325
Geological Science, the Record of 188
„ Survey of the United States 305, 418
Geology 104, 211, 326, 427
„ of Croydon, Lecture on the 96
„ of London and its neighbourhood, Guide to the 306
„ of Victoria 310, 416
Germination of the Spores of Hemileia Vastatrix 207
Gibson's "Religion and Science" 90
Giraffe, Anatomy of the..... 112
Glaciers of the North Slope of the Alps 427
„ Recent and Extinct 169
Glen Roy, Parallel Roads of..... 375
Graphite from Siberia 108
Grasshoppers, Meteorological Aspects of the Flight of..... 112
Great Divide, the 198
Guadaloupe Island, Plants of 205

PAGE

Hadrosaurus, Query as to the Bones of the 212
Hæmoglobin, Spectroscopic reactions of, and its Derivatives 221
Harting's "Rambles in Search of Shells" 94
Hassal's "Food and its Adulteration" 194
Health, Public, effect of Water Supply on 31
Hearing, the Physiology of 328
Heat, and not Light, a Motive Power 128
Heath's "Fern Paradise" 415
Heavens, the Three 201
Heliostat, simple form of 334
Hemileia Vastatrix, Germination of the Spores of 207
Hermit Crabs, how they get possession of their Shells..... 183
Herschel, Caroline, Memoir of ... 200
Heterogenesis, Practical Notes on 338
Houghton's "Sketches of British Insects" 193
Human Personality, what is the meaning of 389
„ Race, Evolution of the, from Apes, &c..... 310
Huxley's "Practical Instruction on Elementary Biology" 84
Hydrostatic Pressure in Vegetable Cells 206

Ice in Newfoundland 428
Ice-age in Great Britain 428
Ice-making Machines..... 334
Imitation Snow Crystals..... 333
"Inflexible," the, and her Armament 60
Insecticides on the Phylloxera, Experiments as to 324
Insects, Digestion of 222
„ Respiration in 215
Iowa Meteor, the great..... 330
Ironclads, Circular 266
Iron, Common and Magnetic, in the Atmosphere 221
„ Form in which it exists in the Spleen..... 430

Jupiter..... 90, 203, 318
„ Motion of bright Spots on ... 422

Lamont's "Yachting in the Arctic Seas" 200
Lankester's (Prof.) "History of Creation" 185
Lardner's "Handbook of Astronomy" 96

	PAGE
Leaf-glands of Saxifraga tridactylites	213
Leaves, Emissive Power of	207
Letheby, Dr., Death of	324
Life, Matter and, Studies of	149
„ relation of Air to	94
„ the Dawn of	87
Lignite	105
Lloyd, W. A., on Aquaria	253
Loan Collection of Scientific Apparatus at South Kensington	311
„ „ Errors in the Catalogue of	425
Lobster, American, early Stages of the	224
Lommel's "Physical Optics"	91
Lychen, a rare	425
Machine for Darning Stockings	106
Maclaren's "Critical Examination of Arguments for and against Darwinism"	308
Mammals and Reptiles, relations between	326
„ of the Assyrian Sculptures	336
Mars	98, 202, 317
Matter and Life, Studies of	149
Mechanics	105
Medical Science	107, 213, 328, 430
Medicines for Suckling Infants given through the Mother's Milk	107
Medusæ, Effect of Strychnia on	221
Meehan's (Mr.) Explanation of his Attack on Mr. Darwin	322
Metal Gallium, the new	329
Metallurgy	108, 216, 329, 431
Meteor, Iowa, the great	330
Meteorites, Chronicle of the Recent Falls of	331
Meteorological Aspects of the Flight of Grasshoppers	112
Meteorology	109, 330
Mexico, Calcareous Alabaster from	323
Microscope, Musical Sand examined beneath the	434
Microscopical Papers	218, 331
Microscopy	110, 216, 331, 433
„ Early History of	331
Milk, Nitrogen and Albumen in	426
Mineralogical Society, new	108
Mineralogy	108, 329, 431
Mining	108, 329, 431
Minor Planets, the	99
Mivart, Sir G., on Bats	225
Mode of looking at a Watch through a Beetle's Eye	217
Monster Battery, a	219
Moon and the Earth	310
Moon, the	98, 202, 316, 412
„ Inequality in the Motion of the	420
Morphology, Animal	301
Morris, J., on the Cretaceous Flora	46
Morse's "First Book of Zoology"	192
Mountain Barometer, new	434
Muscle, Variations in the Strength of a	215
Mushrooms, how reproduced	69
Musical Sand examined beneath the Microscope	434
"Mycographia," Mr. Cooke's	101
Natural History Objects, Notes on collecting and preserving	302
Natural History, Popular	193
„ Science: what it is	196
Neptune	203
Nerves, Unipolar, Electric Excitement of the	215
Newfoundland, Ice in	428
Nicholson's "Introductory Textbook of Zoology"	92
Nicobar Islands, new Plants from the	102
Nile, the Water of the	103
Nitrogen and Albumen in Milk	426
Nomenclature of the Drift	212
Nutrition, Influence of, on Form	102
Observatories and Instruments	100
Oolitic Brachiopoda	211
Optics, Popular	91
Oxide of Uranium, new	211
Palæontology	104, 326, 427
Parabin, a new Carbohydrate	209
Parallel Roads of Glen Roy	375
Parasites, Animal	191
Pears, the Celtic Race of	423
Peat, compressed	329
Periodic Waves of the Swiss Lakes, Experiments on the	332
Petrified Forest of California	326
Phosphuretted Hydrogen, the Body rendered Luminous by	215
Phylloxera, Experiments as to Insecticides on the	324
Physics	111, 218, 332, 434
Physiological Laboratory	84
Planets, Minor, the	99, 203, 317
Plants, climbing	86
„ Ethyl Alcohol in	210
„ Experiments on the Digestive Power of	319
„ Functions of the Stomata in	208
„ New, from the Nicobar Islands	102
„ of Guadaloupe Island	205
Platinum of the Urals	216
Platyscopic Pocket Lens, new	216

PAGE

Plum-trees, the Black Knot of 322
Poisonous Dye in Wines 430
Poles, Climate of the..... 105
Popoffkas, or Circular Ironclads ... 266
Popular Conchology 94
„ Natural History 193
„ Optics 91
Pouchet's "Universe" 95
Preece (W.) on Railway Travelling and Electricity 138
Proctor (R. A.) on Astronomy in America 351
Proctor's "Science By-ways" 93
Public Health, Effect of Water-Supply on 31
Pyrites, Electro-conductibility of... 221
Pythium Equiseti 321

RADIOMETERS, Experiments with 128, 435
Railway Travelling and Electricity 138
Rain, Influence of Forests on the Quantity of..... 221
Redwood Trees, Colossal 209
Re-foresting in France 189
Religion and Science 90
Reliquiæ Aquitanicæ 89
Reproduction of Mushrooms..... 69
Reptiles and Mammals, Relations between 326
Respiration in Insects 215
Reviews of Books 84, 185, 299, 406
Rhea Americana, new Tænia from 336
Roscoelite a Vanadium Mineral ... 431
Royal Society's Medal to Mr. Crookes 210

SALTS, Gyratory Movements of in Water 220
Samarskite in America 216
Saturn 103, 318
„ Rings of 422
Saxifraga tridactylines, Leaf-glands of..... 217
Schutzenberger "On Fermentation" 303
Science and Religion 90
Science By-ways..... 93
„ the Warfare of 414
Scientific Apparatus at South Kensington, Loan Collection of 311
„ Summary ... 98, 202, 315, 420
Scotch Fossil Trees 213
Sea-sickness, Cure for 107
Seeds, how long they preserve their Vitality 206
„ Hygroscopic Mechanism by which they bury themselves..... 424
Self-acting Latch, Browning's 106
Shell-mounds of Florida 417

PAGE

Shells, Rambles in Search of 94
Siberia, Graphite from 108
Slack (H. J.) on Matter and Life .. 149
Smith (W.G.) on the Reproduction of Mushrooms 69
Snakes that eat Snakes 335
Snow-Crystals, Imitation 833
Solar Dark Line 1474, Duplicity of the 423
„ Rays, utilising the 218
Sound Attractions 436
Spectroscopic Reactions of Hæmoglobin and its Derivatives 221
Spectrum, Ultra-Violet of the, Experiments on the 111
Spontaneous Generation, Experiments on..... 113
„ „ a reputed Feature of..... 338
Starch, Formation of, in Chlorophyll-grains 205
Stars and Nebulæ 319
„ Double and Variable..... 203
Stepanovsky Graphite, Analysis of 109
Stomata in Plants, Functions of the 208
Strychnia, Effect of, on Medusæ ... 221
Sugar, Beet, Experiments on the ... 323
Sugar, Crystallisation of, Circumstances which affect the 210
Sulphuric Anhydride, Manufacture of..... 323
Sulphur in Coal Gas 324
Sun, the 98, 202, 315
Symonds (Rev. W. S.) on Glaciers, Recent and Extinct 169

TÆNIA, New, from Rhea Americana..... 336
Tape-worms 92
Taylor's "Notes on Collecting Natural History Objects"..... 302
Tea, Quantity of Tannin in..... 103
Telegraphy 310
"The Garden," Botanical Newspaper..... 207
Time and Time-tellers 97
Topley (W.) on Water Supply and Public Health..... 31
Tree-frog, singular Custom of a ... 335
Trilobite, new 328
Tyndall (Prof.) on the Parallel Roads of Glen Roy 375
„ Experiments on Spontaneous Generation..... 113
Typhoid Germs, the Filtration of... 328

ULTRA-VIOLET of the Spectrum, Experiments on the 111

	PAGE
Unipolar Electric Excitement of the Nerves	215
United States, Geological Survey of the	305
„ „ National Museum, Bulletin of the	309
Universe, the	95
Urals, association of the Native Platinum of the	216
Uranium, new Acid and Oxide of...	211
Uranus	100, 318
Valisneria Spiralis, Growth of the Flowers of	319
„ „ Extraordinary Growth of	208
Van Beneden's "Animal Parasites"	191
Vegetable Cells, Hydrostatic Pressure in	206
„ Physiology 101, 205, 319,	423
Venus	209, 315
„ Atmosphere of	420
„ Photometric Experiments upon	421
„ Specular Reflexion from Surface of	421
Vertebrata of the Cretaceous Formations of the West	190
Victorian Geology and Palæntology	416
Victoria, the Geology of	310
Vivisection	396
Wallace's "Geographical Distribution of Animals"	406
Water of the Nile, the	103
Water Supply and Public Health	31
Waves as a Motive Power	332
Wheatstone, Sir C., Death of	111
Whitaker's "Geological Record for 1874"	188
Whitaker's "Guide to the Geology of London and its Neighbourhood"	306
White's "Warfare of Science"	414
Wines, Poisonous Dye in	430
Wood's "Dwellers in our Gardens"	193
Woolwich Infant, the	241
Wyman's "Shell Mounds of Florida"	417
Yachting in the Arctic Seas	200
Zanzibar Copal	320
Zoology	112, 221, 335, 435
„ First Book of	192
„ for Juniors	92

END OF VOL. XV.

LONDON: PRINTED BY
SPOTTISWOODE AND CO., NEW-STREET SQUARE
AND PARLIAMENT STREET